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**(54) High-frequency surgical instrument and procedure for its operation**

(57) The invention provides a high-frequency surgical instrument with a high-frequency generator (11) with at least one active electrode (12) output (13) and at least one neutral electrode (14) output (15), to which at least one partially-neutral electrode (14a) of a neutral electrode pair (14a; 14b) may be connected whose individual electrodes (14a; 14b) are connected to an auxiliary voltage source with clearly lower frequency than the high frequency, whereby a monitoring circuit from the auxiliary voltage and the auxiliary current flowing between the partially-neutral electrodes (14a; 14b) creates an impedance signal (19) representative of the impedance between the two partially-neutral electrodes (14a; 14b), and when a first established upper alarm limit (17) and/or a second upper alarm limit (20) for the impedance signal (19) adaptable to the actual value of the impedance signal is exceeded, a high-frequency generator blocking signal (22) and/or an alarm signal (23) is issued. According to the invention, it is provided that a SET button (24) is provided to adjust the second alarm limit (20). When the button is pressed, the automatic adjustment process is activated.

Fig. 1

